ARRANGEMENT IN AN ACCESS ROUTER FOR OPTIMIZING MOBILE ROUTER CONNECTIONS BASED ON DELEGATED NETWORK PREFIXES

ABSTRACT OF THE DISCLOSURE

An access router of a local mobile network includes a delegation resource for delegating address prefixes and a routing resource configured for parsing reverse routing headers from received data packets. The delegation resource supplies each mobile router attaching to the local mobile network with a corresponding unique delegated address prefix within an available network prefix for use within the local mobile network. Each mobile router attached to the access router via another mobile router utilizes a reverse routing header to establish a tunnel with the access router, enabling the access router to source route messages to the mobile router via its corresponding local care-of address and next-hop addresses specified in the reverse routing header. Each mobile router creates a remote care-of address based on the delegated address prefix, minimizing the need for binding updates with the corresponding home agent as the mobile router moves within the local mobile network.